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# Controlling Yellow Jackets and Wasps on School Grounds

Thank you for attending the *Controlling Yellow Jackets and Wasps on School Grounds* webinar broadcast on May 23, 2017, a part of the [School IPM Webinar series](#) hosted by EPA's Center for IPM.

## Speakers

- Jody Gangloff-Kaufman, Cornell University, jlg23@cornell.edu
- Lyn Braband, Cornell University, lab45@cornell.edu
- Mark Hardin, Howard County (Maryland) Public Schools, mark\_hardin@hcpss.org

## Questions and Answers

*The questions below were posed by webinar participants. The responses may have been refined for clarification or to include additional resources.*

**1. Do foaming insecticides work well on aerial yellow jacket/wasp nests?**

(M. Hardin) Yes, they do work well.

**2. How do you keep wasps and bees away from playgrounds?**

(M. Hardin) Keep them free of food, and kids' hands free of sugary substances. Insuring there are no water sources on the playground area will also reduce the occurrence of stinging insects.

**3. Do yellow jackets and wasps provide any ecological benefits?**

(J. Gangloff-Kaufman) Yes, of course. Yellow jackets, paper wasps, mud daubers, bald-faced hornets and nearly all other wasp species are predators of other insects, including garden and tree-feeding caterpillars. Many are also scavengers, along with ants and other opportunist insects. They clean up. But the downside of their predation on other insects is that they kill lots of butterfly and moth larvae, some of which are very noticeable (silk moths) and they prey upon bees as well.

**4. How far from trash cans and food courts should wasp traps be installed?**

(M. Hardin) They can be placed directly on the dumpsters. If traps are placed away from a food source (trash, etc.), it is important for them to be located in the "bee line" along which the stinging insects travel between the food source and their nest.

(L. Braband) The distance from the traps to the protected site (concession stand) is more of an art than a science. It depends a lot on the site itself and where it is practical to put the traps relative to the concessions. In our experimental plots, the closest traps were 50 feet from the "protected site". I have observed vendors attaching them right to the concession stand but would to avoid that and have the traps placed away from the concessions.

**5. Is a toy water gun loaded with 50% bubble/50% water mixture effective in killing yellow jackets and wasps?**

(M. Hardin) It may be, but in many states it is illegal to use something like this on school property because it is not a registered pesticide.

(L. Braband) Soapy water is generally lethal to soft-bodied insects, but, as Mark indicated, may be considered an unregistered pesticide by your state agency, as it is in New York.

**6. What is the best bait/lure to use in a yellow jacket jar trap?**

(M. Hardin) I use a combination of commercially available bait, cranberry sauce, and apple cider or juice.

(L. Braband) We use inexpensive fruit punch with an equal amount of water (to make our supply last longer). We have also had some success with adding a surfactant (soap) to the bait to reduce wasp escapes from the traps. Our state pesticide regulatory agency has okayed this approach.

**7. Can female carpenter bees turn around in their chambers they make?**

(J. Gangloff-Kaufman) Judging from images of carpenter bee tunnels, which are reused year after year and expanded to be interconnected, I would say yes, carpenter bees can turn around in their galleries. Many tunnels photographed and published on the web show tunnels wide enough for a bee to turn around. Also, the images of carpenter bees facing head-first out of the tunnel opening suggests that they were able to turn around, because they don't enter tunnels backwards.

**8. What is the best material (other than expandable foam) to use to fill holes in wood and fence posts?**

(M. Hardin) Copper wool (e.g., Stuf-Fit) or stainless steel wool.

**9. Are there products that can be applied to walls and eaves to discourage yellow jacket/wasp nest-building?**

(L. Braband) Yes, there are pesticides labeled for that use.

**10. Will wasps and hornets return to the same location to nest each year?**

(J. Gangloff-Kaufman) Yellow jackets and paper wasps will use the same structure year after year, especially in a sheltered spot, such as eaves or an opening into an attic. I once looked into the attic of an older lady who had occasional yellow jackets in her kitchen. The attic looked like it had been inhabited each summer by yellow jackets for decades. Yellow jackets do not reuse old combs, and neither do bald-faced hornets or European hornets. Although European hornets will also use the same old barns or trees for nesting, bald-faced hornets tend to make nests in tree branches and may use the same general area but not the same tree branch or the old nesting material. In some southern states, yellow jackets may have perennial nests, meaning they never die off seasonally. These nests can grow quite large.

**11. Is mint oil a better option than a pesticide to control wasps?**

(M. Hardin) While it is not effective in my experience, I do not know if there have been any studies on mint oil for wasp control. It is however not a registered pesticide, so it may be illegal to apply on school grounds to control insects.

(L. Braband) I have good success with plant essential oil sprays, including mint oil, on exposed nests, such as paper wasps and bald-faced hornets. I start spraying at the entry hole of the nest and empty the whole can, saturating the nest as well as I can. Some workers will survive, especially those away from the nest, so this may need to be followed up since mint oil has little residual effects.

**12. How do bald-faced hornet overwinter?**

(J. Gangloff-Kaufman) Queens overwinter under mulch, bark or leaves or in stumps or logs. The rest of the colony dies shortly after the first hard frost.

**13. What can be done to keep the paper wasps from coming back to a given location?**

(M. Hardin) Cleaning with a strong detergent if it is an exterior location. Sealing holes leading to the inside of a structure such as those around penetrating pipes.

**14. Why are yellow jackets and other wasps more aggressive in the fall?**

(J. Gangloff-Kaufman) When new queens have been produced and have left the nest to feed, mate and overwinter, the old queen slows her work and eventually dies. Workers do not die right away

and many may still emerge from pupation. These workers, normally under the control of the queen's pheromones, no longer have that chemical communication to keep them busy. They forage for sweets to stay alive and they become aggressive without direction from the queen.

**15. Are soap and water, if used early in the season, effective against paper wasp nests?**

(M. Hardin & L. Braband) We use it to remove nest remains and the wasp pheromones that may be left behind once a nest is removed. Because it is not a registered pesticide, it is illegal to use it to kill wasps or bees in many states.

**16. What are some good online resources on preventing encounters with stinging insects around schools and on playgrounds?**

(L. Braband) The New York State IPM program's, [stinging insect web page](#) provides some valuable information.

(J. Gangloff-Kaufman) It's all common sense. Find and eliminate yellow jacket and paper wasp nests during the summer. Maintain good sanitation around the school, especially around dumpsters and where milk crates may be stored (rinse those milk crates!). Don't let them nest or give them a reason to visit school grounds. Tell students not to swat yellow jackets. Otherwise, there isn't much more we can do to prevent encounters. Even flower gardens are not a thing to worry about because foragers don't bother people. The late-season scavengers are most problematic.